



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
Auroralight Inc

Stacia Elmore
2742 Loker Ave W
#100
Carlsbad, CA 92010-6619
United States

Catalog Number
LSM4-2-27 (2W, 2700K)

Order Number
14012719
Test Number
14012719.11

Test Date

2021-09-27

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Circular metal mounting plate with metal dome
Lamp: One (1) XP-L 2700K Cree LED
Mounting: Surface – Wall
Ballast/Driver: PROPRIETARY

Luminaire



Luminaire Characteristics

Luminous Length: 1.00 in.
Luminous Width: 2.250 in.
Luminous Height: 1.75 in.

Summary of Results

Roadway Classification: Type I, Very Short
Cutoff Classification: Noncutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 24.0 °C
Voltage: 11.86 VAC
Current: 0.1956 A
Power: 2.291 W
Power Factor: 0.987
Frequency: 60 Hz
Current THD: 7.88 %

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.0 °C	11.86 VAC	0.1956 A	2.291 W	0.987	60 Hz	7.88 %

Summary of Results

Spacing Criteria

0-180: 1.29

90-270: 1.16

Total Lumen Output:

141.1 Lumens

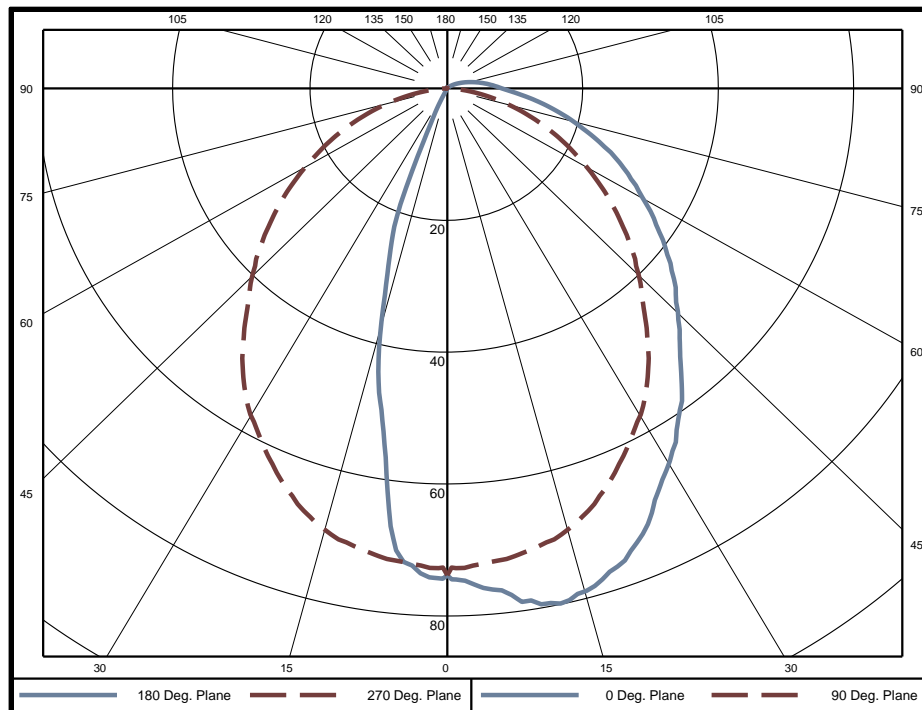
Luminaire Efficacy:

61.6 lm/w

Maximum Candela:

80 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.77	1.3%	60-65	7.52	5.3%	120-125	0.15	0.1%
5-10	5.18	3.7%	65-70	6.27	4.4%	125-130	0.10	0.1%
10-15	8.00	5.7%	70-75	4.91	3.5%	130-135	0.07	0.0%
15-20	10.06	7.1%	75-80	3.58	2.5%	135-140	0.04	0.0%
20-25	11.24	8.0%	80-85	2.35	1.7%	140-145	0.03	0.0%
25-30	11.66	8.3%	85-90	1.43	1.0%	145-150	0.02	0.0%
30-35	11.88	8.4%	90-95	0.97	0.7%	150-155	0.02	0.0%
35-40	11.65	8.3%	95-100	0.73	0.5%	155-160	0.02	0.0%
40-45	11.11	7.9%	100-105	0.55	0.4%	160-165	0.02	0.0%
45-50	10.50	7.4%	105-110	0.40	0.3%	165-170	0.01	0.0%
50-55	9.68	6.9%	110-115	0.29	0.2%	170-175	0.01	0.0%
55-60	8.69	6.2%	115-120	0.21	0.1%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	71	50.6%
0-60	111	79.0%
0-90	137	97.4%
90-180	4	2.6%



Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84	73.84
	5	76.29	76.31	74.74	73.59	72.12	72.75	72.68	72.92	72.10	72.92	72.68	72.75	72.12	73.59	74.74
	10	79.44	78.74	76.48	73.60	71.05	71.10	67.35	59.32	52.83	59.32	67.35	71.10	71.05	73.60	76.48
	15	78.89	78.35	76.36	72.68	69.18	67.56	51.91	43.08	36.57	43.08	51.91	67.56	69.18	72.68	76.36
	20	76.18	75.71	74.05	70.73	65.75	59.73	40.11	27.10	22.31	27.10	40.11	59.73	65.75	70.73	74.05
	25	71.01	70.92	69.79	66.86	61.52	49.52	27.37	12.96	4.53	12.96	27.37	49.52	61.52	66.86	69.79
	30	65.28	65.60	64.82	62.59	57.11	41.16	18.09	2.88	0.25	2.88	18.09	41.16	57.11	62.59	64.82
	35	59.49	59.56	58.93	57.10	51.72	33.53	10.38	0.39	0.09	0.39	10.38	33.53	51.72	57.10	58.93
	40	53.15	52.68	51.96	50.47	45.45	26.10	5.04	0.07	0.04	0.07	5.04	26.10	45.45	50.47	51.96
	45	47.84	46.90	45.91	44.62	39.93	20.31	2.21	0.04	0.02	0.04	2.21	20.31	39.93	44.62	45.91
	50	42.96	41.55	39.99	38.63	34.57	15.34	0.98	0.03	0.01	0.03	0.98	15.34	34.57	38.63	39.99
	55	37.97	36.61	34.67	32.92	29.10	11.47	0.43	0.02	0.01	0.02	0.43	11.47	29.10	32.92	34.67
	60	33.03	31.57	29.15	27.08	23.70	8.38	0.20	0.02	0.01	0.02	0.20	8.38	23.70	27.08	29.15
	65	28.54	26.61	23.95	21.63	18.65	6.07	0.09	0.01	0.01	0.01	0.09	6.07	18.65	21.63	23.95
	70	23.76	21.68	18.90	16.34	13.80	4.19	0.04	0.01	0.01	0.01	0.04	4.19	13.80	16.34	18.90
	75	19.05	17.04	14.10	11.42	9.20	2.67	0.02	0.01	0.01	0.01	0.02	2.67	9.20	11.42	14.10
	80	14.72	12.75	9.82	6.91	5.13	1.46	0.01	0.01	0.01	0.01	0.01	1.46	5.13	6.91	9.82
	85	10.83	9.09	6.24	3.38	1.89	0.56	0.01	0.01	0.01	0.01	0.01	0.56	1.89	3.38	6.24
	90	8.03	6.64	4.00	1.41	0.24	0.09	0.01	0.01	0.02	0.01	0.01	0.09	0.24	1.41	4.00
	95	6.40	5.17	2.90	0.87	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.87	2.90
	100	4.97	3.93	2.16	0.66	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.66	2.16
	105	3.74	2.92	1.62	0.52	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.52	1.62
	110	2.74	2.13	1.21	0.42	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.42	1.21
	115	1.92	1.52	0.92	0.35	0.05	0.05	0.05	0.06	0.06	0.06	0.05	0.05	0.05	0.35	0.92
	120	1.32	1.07	0.69	0.29	0.05	0.05	0.06	0.06	0.07	0.06	0.06	0.05	0.05	0.29	0.69
	125	0.87	0.72	0.50	0.24	0.05	0.06	0.06	0.06	0.07	0.06	0.06	0.05	0.24	0.50	0.72
	130	0.54	0.46	0.36	0.19	0.06	0.06	0.06	0.07	0.08	0.07	0.06	0.06	0.19	0.36	0.46
	135	0.29	0.26	0.24	0.15	0.06	0.07	0.07	0.07	0.09	0.07	0.07	0.07	0.15	0.24	0.26
	140	0.11	0.12	0.15	0.12	0.07	0.07	0.08	0.08	0.10	0.08	0.08	0.07	0.12	0.15	0.12
	145	0.02	0.06	0.10	0.09	0.07	0.08	0.09	0.09	0.11	0.09	0.09	0.08	0.07	0.09	0.10
	150	0.02	0.04	0.07	0.08	0.08	0.09	0.09	0.09	0.12	0.09	0.09	0.09	0.08	0.08	0.07
	155	0.04	0.05	0.06	0.08	0.08	0.09	0.10	0.10	0.13	0.10	0.10	0.09	0.08	0.08	0.06
	160	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.11	0.13	0.11	0.11	0.10	0.09	0.08	0.07
	165	0.06	0.08	0.08	0.09	0.10	0.11	0.11	0.11	0.13	0.11	0.11	0.11	0.10	0.09	0.08
	170	0.08	0.09	0.09	0.10	0.11	0.11	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.10	0.09
	175	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.11	0.12	0.11	0.11	0.11	0.11	0.11	0.10
	180	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	50870	50870
	45	16950	21880
	55	13030	16560
	65	9787	11400
	75	6734	6276
	85	4075	1510



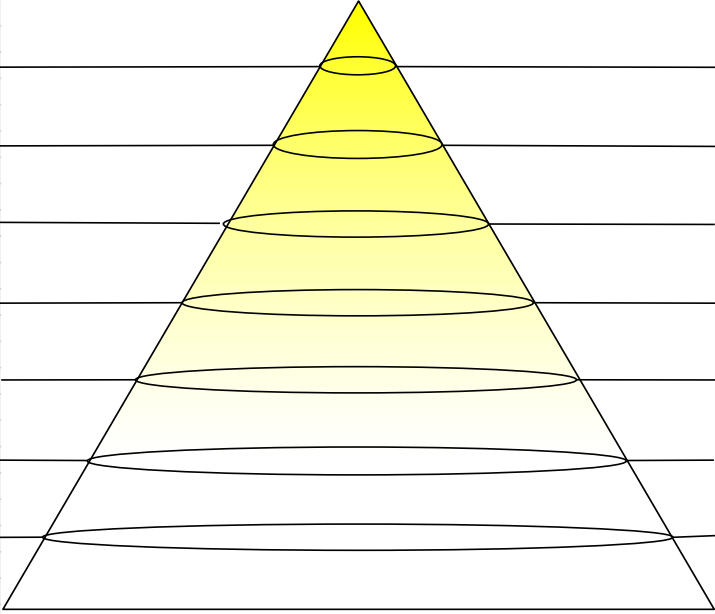
Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																	
0	167	167	167	167	163	163	163	163	155	155	155	147	147	147	141	141	141	137
1	153	147	141	135	149	143	138	133	136	132	128	130	127	123	125	122	119	116
2	140	129	120	112	136	126	118	111	121	114	107	115	110	104	111	106	102	98
3	129	115	104	95	125	112	102	94	107	99	92	103	96	90	99	93	88	85
4	119	103	91	82	115	101	90	81	97	87	80	93	85	78	90	83	77	74
5	110	93	81	72	107	91	80	71	88	78	70	84	76	69	82	74	68	65
6	102	84	72	64	99	83	71	63	80	70	62	77	68	62	75	67	61	58
7	95	77	65	57	93	76	65	57	73	63	56	71	62	55	69	61	55	52
8	89	71	59	52	87	70	59	51	68	58	51	66	57	50	64	56	50	47
9	84	66	55	47	81	65	54	47	63	53	46	61	52	46	59	51	46	43
10	79	61	50	43	77	60	50	43	58	49	43	57	48	42	55	48	42	40

Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	73.84 Candela
Central Cone Intensity:	74 Candela
Beam Flux:	89.4 Lumens
Beam Angle (0-180):	70.9 Degrees
Beam Angle (90-270):	95.7 Degrees
Field Angle (0-180):	115.4 Degrees
Field Angle (90-270):	154.3 Degrees

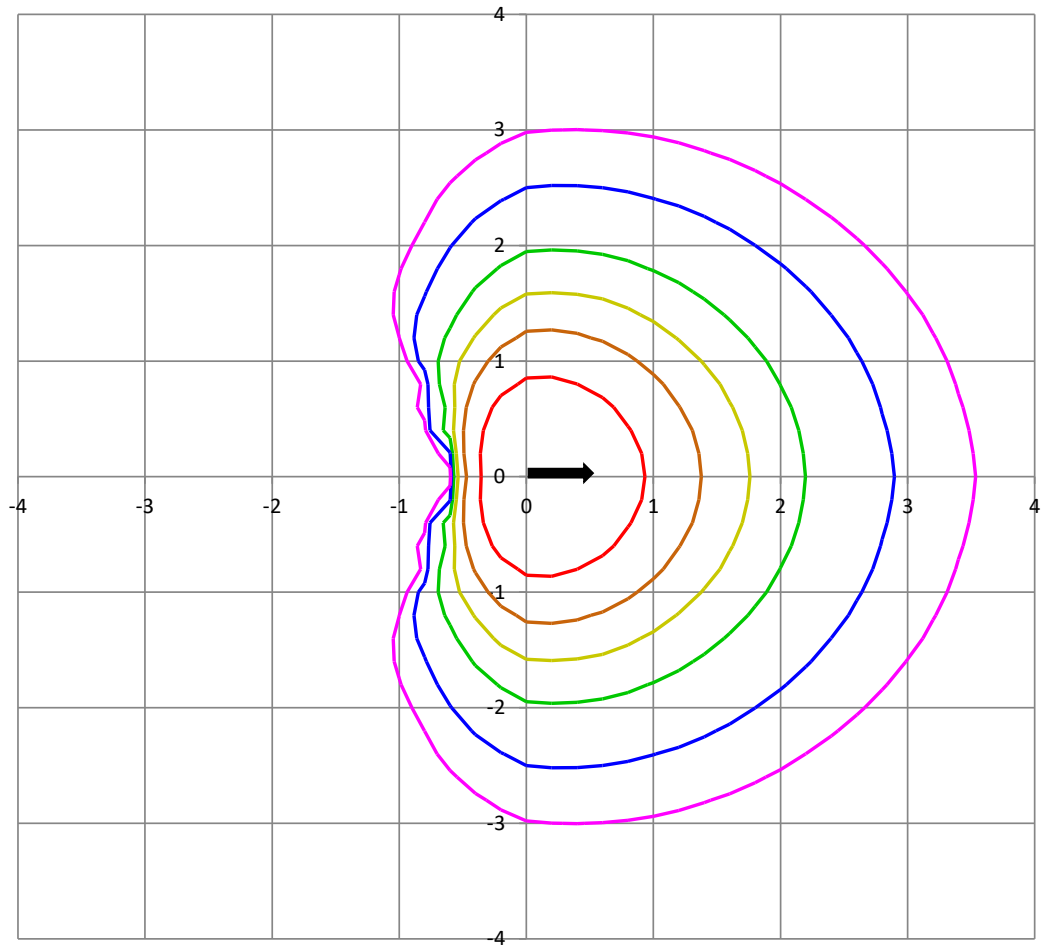
Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		4.62	3.73
6.00		2.05	5.60
8.00		1.15	7.46
10.0		0.738	9.33
12.0		0.513	11.2
14.0		0.377	13.1
16.0		0.288	14.9



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height

5fc 2fc 1fc 0.5fc 0.2fc 0.1fc



IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	30.0	21.2%
FM	(30-60)	51.0	36.0%
FH	(60-80)	19.4	13.7%
FVH	(80-90)	3.5	2.5%
BL	(0-30)	18.1	12.8%
BM	(30-60)	12.8	9.0%
BH	(60-80)	2.9	2.1%
BVH	(80-90)	0.2	0.2%
UL	(90-100)	1.7	1.2%
UH	(100-180)	1.9	1.4%
Total		141.6	100.0%
BUG Rating	B0 U1 G0		